Access DB# 444819

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name:		Examiner # :	Date:
Art Unit:	Phone Number 30	Serial Number:	·
Mail Box and Bldg/Room l	Location:	Results Format Preferred (circle):	PAPER DISK E-MAIL
If more than one search i	is submitted, please	prioritize searches in order of ne	eed. **********
Include the elected species or str	nictures, keywords, synony any terms that may have a	describe as specifically as possible the sub rms, acronyms, and registry numbers, and c special meaning. Give examples or relevan laims, and abstract.	combine with the concept or
Title of Invention:			· · · · · · · · · · · · · · · · · · ·
Inventors (please provide full	names):		
Earliest Priority Filing Dat	e:		
For Sequence Searches Only P. appropriate serial number.	lease include all pertinent in	formation (parent, child, divisional, or issued p	patent numbers) along with the
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Searcher D. Schverde	Type of Sea		,
Searcher Phone # 308-4	NA Sequence AA Sequence	7	
Searcher Location: CM/	12E18 Structure (#)		
Date Searcher Picked Up.	Bibliographic		
Date Completed:	1 Litigation		
Searcher Prep & Review Time	5	Lexis/Nexis	
Clerical Prep Time.	Fulltext Patent Family	Sequence Systems	7
Online Time: 6	Other	Other (specify)	Ca

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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 2000000000
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MAb 55.1 heavy cha
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Mouse anti-Fas ant
Murine anti-Fas an
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Monoclonal antibod
Sequence encoded b
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Antibody F19 chime
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58.8	58.8	58.8	•					•	59.6			•	•			٠			60.1	60.1	60.1	60.1	•	60.1	•	•	•		•	•	63.8	•	63.9
452	452	452	476	711	468	448	448	470	463	463	467	595	481	468	464	464	652	470	470	470	470	470	470	470	470	470	449	449	472	470	454	465	472
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Y77766	в30322	Y29458	R31023	W85692	W85689	R97376	R43673	W90936	W14940	W14939	B36210	W86003	R24442	R28808	W14938	W14941	W48650	W90926	B14776	W83036	W90935	W90929	B14779	W83037	W90934	W90933	W49816	R43339	Y50166	в08026	R30774	7	Y50157
Humanised anti-IL-	Humanised anti-IL-	Recombinant immuno	Antibody D heavy c	MoTAbII fusion pro	D9D10 heavy chain	Murine anti-BGH MA	Mouse anti-bovine	Humanised HFE7A de		3F4 (Chimeric) hum	Human immune syste	Anti-5T4 single ch	Sequence of antibo	pre-5A8 humanised	Murine anti-porcin	3F4 Human IgG4 exp	Heavy chain of hmA	Humanised HFE7A de	Humanised anti-Fas	Anti-Fas humanised	Humanised anti-Fas	Humanised HFE7A de	Humanised anti-Fas	Anti-Fas humanised	Humanised anti-Fas	Humanised anti-Fas		Completely humanis	Human reshaped F19	A dimeric anti-CD2	H52H4-160 murine a		Chimeric mouse/hum

ALIGNMENTS

RESULT R13061 ID R1 XX AC R1 XX DT 03

R13061;

R13061 standard;

Protein;

468

A

OK3T; light chain; humanised antibodies; CDR-grafting

Monoclonal antibody OK3T heavy chain.

03-OCT-1991 (first entry)

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WPI; 1991-222915/30
           Adair JR,
                                                                                          Protein
                                                                                                            Key
                      (CELL-) CELLTECH LTD
                                 21-DEC-1990;
21-DEC-1989;
                                                   21-DEC-1990;
                                                              11-JUL-1991.
                                                                         W09109967-A
                                                                                                     Peptide
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           Athwal DS,
                                 90WO-GB02017.
89GB-0028874.
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                                                                                          /label= signal peptide 20..468
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Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        isolated from a library prepared from OK3T producing cells. The library was screened with a probe complementary to a region in the mouse IgG2a constant domain region. The OK3T sequence was used in CDR-grafting experiments to prepare humanised antibodies.
                                  Region
                                                                                             cytotoxic
                                                                                                                     anti-snake small neurotoxin antibody; heavy chain; IgG2;
                                                                                                                                           Monoclonal antibody M(alpha)2-3 Heavy-chain
                                                                                                                                                                      08-FEB-1994
                                                                                                                                                                                                                    R40384 standard; Protein; 469
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                                                          Peptide
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                                                                                                          immunoglobulin; bispecific bivalent antibody; cell-targetting;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OK3T heavy chain sequence was deduced from the cDNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                          NLEGGPSVFIFPPNIKDVLMISLTPKVTCVVVDVSEDDPDVQISWFVNNVEVHTAQTQTH 299
                                                                                                                                                                                                                                                                               PPAEQLSRKDVSLTCLVVGFNPGDISVEWTSNGHTEENYKDTAPVLDSDGSYFIYSKLNM 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SPKFKGKATLTVDKSSSTAYMELRSLTSEDSAVYYCARRAGAYY-FDYWGQGTTLTVSSA 119
                                                                                                                                                                                                                                                                                                       KTSKWEKTDSFSCNVRHEGLKNYYLKKTISRSPGK 454
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                                                                                             agent
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                                                                                                                                                                    (first entry)
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                      /label= variable
                                             /label= signal_peptide
                                                                    Location/Qualifiers
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es 60; Indels
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                                                                                                                                                                                                                                                                                                                                                                            CC A fragment of the heavy chain (VH + CH1) from the anti-snake small CC neurotoxin monoclonal antibody M(alpha)2-3 was PCR-amplified from thybridoma-derived cDNA using primers Q48039 and Q48040. A light CC chain fragment (VL + CL) was amplified from the same source using CC primers Q48041 and Q48042. The two amplified fragments were cc inserted into the same vector; the H-chain fragment was inserted (in-frame) between codons 6-7 of the phoA coding sequence and the CC L-chain fragment was inserted into a cassette which contained a CC phoA S-D sequence, a signal peptide and the first 6 codons of phoA. CC The cassette was positioned between the termination codon and CC the transcription termination sequence of phoA. The fusion CC identical Ab-derived units. The invention also covers hybrid CC identical Ab-derived units. The invention also covers hybrid CC bispecific antibodies). When a toxic protein is used in place of CC phoA, the hybrid molecules can be used as cell-targetting
                                                                                                                                                                                                                                                                                             Best Local Similarity Matches 345; Conserv
                                                                                                                                                                                                                                                                                                             Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                          Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                       therapeutic agents.
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(COMS ) COMMISSARIAT ENERGIE ATOMIQUE.
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                                         SPKFKGKATLTVDKSSSTAYMELRSLISEDSAVYYCARRAG--AYYFDYWGQGTTLTVSS 118
                PNLEGGPSVFIFPPNIKDVLMISLTPKVTCVVVDVSEDDPDVQISWFVNNVEVHTAQTQT
                                                                                                                       AKTTPPSVYPLAPGCGDTTGSSVTLGCLVKGYFPESVTVTWNSGSLSSSVHTFPALLQSG 178
                                                                                                                                                                      nenfkgkatltvdtssstaymqlssltsedtavyfcaramgatatlldywgqgttltvss
                                                                                                        akttapsvyplapvcgdttgssvtlgclvkgyfpepvtltwnsgslssgvhtfpavlqsd
469 AA;
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253..362
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                                                                                                                                                                                                                                                                                             75.6%; Score 1835; DB 14; 75.7%; Pred. No. 4.2e-111; tive 44; Mismatches 59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              252
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RESULT
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                                                                                                                                                                                        01-DEC-1987;
18-MAR-1987;
10-AUG-1987;
16-MAR-1988;
01-JAN-1988;
             Modified antibodies (Abs) having an altered Fc region with altered binding affinity for an Fc receptor esp. Fc-gamma-Rl may have the following residues replaced: 234, 235, 236 and 237; 235 by Glu, and at least one of the others by Ala. Those with altered binding affinity for Clq may have an altered CH2 domain in which one of the following residues of the heavy chain have been changed to a
                                                                                                                                                                                                                                                                                                                                                       Region
                                                                           Example; Fig 3;
                                                                                                   modified IgG class antibody - haresidue in the constant portion
                                                                                                                              N-PSDB;
                                                                                                                                     WPI; 1988-285543/40
                                                                                                                                                       Winter
                                                                                                                                                                                                                                            18-MAR-1988;
                                                                                                                                                                                                                                                            22-SEP-1988
                                                                                                                                                                                                                                                                                                      Misc-difference
                                                                                                                                                                                                                                                                                                                        Domain
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                                                                                                                                                                                                                                                                                                                                                                                                  Mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                   effector
                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
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                                                                                            function
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MKTSKWEKTDSFSCNVRHEGLKNYYLKKTISRSPGK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \verb"pnllggpsvfifppkikdvlmislspivtcvvvdvseddpdvqiswfvnnvevhtaqtqt"
                                                                                                                                                       GP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               standard;
                                                                                                                                                                        MEDICAL
                                                                                                                                                                                                                                                                                                                                                                                                                  molecule; constant 1
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                                                                                                                                                       Duncan AR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                               87GB-0028042.
87GB-0006425.
87GB-0018897.
88WO-GB00211.
                                                                                                                                                                                         88GB-0025480
                                                                                                                                                                                                                                           88WO-GB00211
                                                                          42pp;
                                                                                                                                                                        RES COUNCIL.
                                                                                                                                                                                                                                                                                                              235..341
/label= (
                                                                                                                                                                                                                                                                                                                             /label= hinge
120..234
/label= CH3
                                                                                                                                                                                                                                                                                                                                                       /label= CH1
98..119
                                                                                                                                                                                                                                                                                             /note= "This residue
                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                            by mouse 1gG
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                                                                                                                                                                                                                                                                                                                                                                                                                  constant region;
                                                                           English.
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                                                                                                                                                                                                                                                                                                                                                                                                                          antibody;
                                                                                                   having at on altered
                                                                                                                                                                                                                                                                                                                                                                                                                                            gamma
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tered CH2 domain in which one of the chain have been changed to a
                                                                                                                                                                                                                                                                                                                                                                                                                                            2b
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                                                                                                                                                                                                                                                                                             is Leu
                                                                                                                                                                                                                                                                                                                                                                                                                                            gene.
                                                                                                   to alter a
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                                                                                                                                                                                                                                                                                             mutant EL235"
                                                                                                   e aminoacid
an effector
                                                                                                                                                                                                                                                                                                                                                                                                                  complement.
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Best Local S
Matches 336
The sequence encodes the heavy chain of MAb KS1/4, construct mouse/human chimeric antibodies. KS1/4:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  residue with a different side chain; 318 (changed to Val) 3 322 (changed to Gin). Those with altered lytic properties, compared with unmodified Ab may have an altered CH2 domain residue 297 of the heavy chain has been changed to Ala.
                            Claim 6;
                                              Recombinant DNA cpds. chimeric derived from
                                                                           WPI; 1989-311203/43.
N-PSDB; N91659.
                                                                                                                                                               18-APR-1989;
                                                                                                                                                                                  25-APR-1989
                                                                                                                                                                                                    EP338767-A.
                                                                                                                                                                                                                      KS1/4;
                                                                                                                                                                                                                                                           Chimeric antibody heavy chain
                                                                                                                                                                                                                                                                                                 P93037;
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                                                                                                                                                                                                                                                                                                                                                                 YSKLNMKTSKWEKTDSFSCNVRHEGLKNYYLKKTISRSPGK 454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PNLEGGPSVFIFPPNIKDVLMISLTPKYTCVVVDVSEDDPDV-----QISWFVNNVEVHT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            akttppsvyplapgcgdttgssvtlgclvkgyfpesvtvtwnsgslsssvhtfpallqsg
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                                                                                                                                                                                                                     chimeric antibody; heavy chain variable region;
                                                                                                      LS,
                                                                                                                         ELI LILLY AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity 98.5
36; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 341 AA;
                                                                                                      Bumol TF,
                                                                                                                                                                                                                                                                            (first entry)
                           50;
                                                                                                                                            88US-0184522
                                                                                                                                                               89EP-0303814
                                                                                                                                                                                                                                                                                                                   protein;
                         89pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           73.7%;
98.5%;
                                              producing a
                                                                                                                         ဗ
                           English.
                                                                                                      Gadski RA,
                                                                                                                                                                                                                                                                                                                   447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 1789.5; DB 9,
Pred. No. 2.6e-108;
0; Mismatches 0;
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l antibody 1
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                                              s - monoclonal
KS1/4.
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Best Local Similarity
                       Fischer R,
Yang YH;
                                                  (CITY )
(YANG/)
WPI; 1994-007204/01
                                                                                                                   23-DEC-1993.
                                                                                                                                      W09325237-A
                                                                                                                                                       Synthetic
                                                                                                                                                                         region;
                                                                                                                                                                                    Chimeric;
                                                                                                                                                                                                     T84.12
                                                                                                                                                                                                                                          R47450
                                                                                                                                                                                                                                                           R47450
                                                                              15-JUN-1992;
                                                                                                 15-JUN-1993;
                                                                                                                                                                                                                       24-JUN-1994
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addfkgrfafsletsastaflqiqqpqnmrtmatyfcvrfisk--gdywgqgtsvtvssa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EVQLQQSGPELVKPGASVMISCRTSAYTFTENTVHWVKQSHGESLEWIGGINPYYGGSIF ::|| || || || || || || :| || || || || :|
                                                                                                                                                                                                                                                                                                                          KTSKWEKTDSFSCNVRHEGLKNYYLKKTISRSPGK 454
                                                                                                                                                                                                                                                                                                                                                    PPAEQLSRKDVSLTCLVVGFNPGDISVEWTSNGHTEENYKDTAPVLDSDGSYFIYSKLNM
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                                                                                                                                                                                                                                                                                                                                            ppeeemtkkqvtltcmvtdfmpediyvewtnngktelnykntepvldsdgsyfmysklrv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         317;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      binds to surface antigens on adenocarcinoma cells and the \ensuremath{\mathsf{C}} regions avoids immunological problems during treatment.
                                                                                                                                                                                                    Heavy
                                                                                                                                                                                                                                                           standard; Protein;
                                                    CITY
                                                                                                                                                                       c; carcinoembryonic antigen; CCA; murine; mouse;
transform; myeloma cell; light chain; tumour.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        447
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                                 Paxton
                                                    Y OF
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                                                                                                 93WO-US05709
                                                             HOPE.
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                                 Shively
                                                                                                                                                                                                                                                            477
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Best Local
           Antigen binding structure; complementarity determining region; CA55.1; colorectal cancer; tumor-associated antigen; hybridoma; monoclonal antibody; MAb; immunotherapy; therapy; diagnosis; transgenic animal; transgenic plant; antibody engineering;
                                                                                                                                                            R76088 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The sequences (054651-52) show the light and heavy chain cDNAs of murine T84.12. The T84.12 antibody is directed against the tumour marker carcinoma embryonic antigen, and is useful for tumour imaging and immunotherapy.

The amino acid sequence given in the specification has been incorrectly identified as a nucleic acid sequence, therefore
humanized antibody; immunotoxin
                                                                                                         21-NOV-1995
                                                                                                                                   R76088;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            unacceptable characters have been represented as an 'N'.

The amino acid sequence given below has been derived from the country.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; Page 17; 27pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New chimaeric T84.12 antibody active against carcinoembryonic antigen - has murine variable and human constant regions, also DNA encoding it and transformed myeloma cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cDNA, by the indexer.
                                                                                                                                                                                                                             440
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                                                                             55.1 heavy chain.
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                                                                                                                                                                                                                                                                                             ILPPPAEQLSRKDVSLTCLVVGFNPGDISVEWTSNGHTEENYKDTAPVLDSDGSYFIYSK
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Pred. No. 1.86
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Antigen binding structures containing antigen - produced by hybridomas and diagnosis and therapy of cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Fig.15; 121pp; English.
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N-PSDB; Q94037.
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ippp keqmakdkvsltcmitdff peditve wqwngqpaenykntqpimdtdgsyfvyskl\\
                         LPPPAEOLSRKDVSLTCLVVGFNPGDISVEWTSNGHTEENYKDTAPVLDSDGSYFIYSKL 417
                                                                                                               THREDYNSTIRVVSTLPIQHQDWMSGKEFKCKVNNKDLPSPIERTISKIKGLVRAPQVYI 357
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Pred. No. 1.4e-95;
5; Mismatches 83;
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Best Local Similarity
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                                                                                                                                                                                                             An antigen binding structure is based on the CDRs (given in R76078-84) of the heavy (R76085) and light (R76086) chains of MAb 55.1 (ECACC 93081901), which recognises the colorectal tumor-associated antigen CA55.1. It is optionally humanized and in the form F(ab')2, F(ab), Fv, scFv or V-min, and is produced in transgenic
                                                                                                                                                                                   Sequence
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03-DEC-1993;
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Pred. No. 2.5e-95;
54; Mismatches 84;
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08-OCT-1997;
01-APR-1997;
25-JUN-1997;
                                                                                                                                                                                                                                                                                                                                              rheumatoid arthritis; autoimmune haemolytic anaemia; myasthenia gravis; multiple sclerosis; Basedow's disease; thrombopenia purpura; insulin-dependent diabetes; allergy; atopy; arteriosclerosis; myocarditis; cardiomyopathy; glomerular nephritis; hypoplastic anaemia; hepatitis; AIDS; transplant rejection; therapy; complementarity determing region;
                                                                                                                                                                                                                                                                                                                                                                                                            HFE7A; monoclonal antibody; mouse; Fas; humanised antibody; apoptosis; HFE7A; autoimmune disease; Hashimoto's disease; apoptosis; HFE7A; autoimmune disease; Hashimoto's disease; systemic lupus erythematosus; graft versus host disease; Sjogren syndrome; pernicious anaemia; Addison's disease; sterility; scleroderma; Goodpasture syndrome; Crohn's disease; sterility;
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                                                                                                                                                                                                                                                                                                                   Mus musculus.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   THREDYNSTIRVVSTLPIQHQDWMSGKEFKCKVNNKDLPSPIERTISKIKGLVRAPQVYI 357
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        97JP-0276064.
97JP-0082953.
97JP-0169088.
                                                                                                                                   /label= CDR_H2
/note= "claim 9
118..128
                                                  98AU-0059701
                                                                                                                                                                                                 /label=
50..54
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69..84
                                                                                                                                                                                                                                                   20..464
/label= Mat_protein
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                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                         /label=
                                                                                                                                                                                        /label= CDR_H1
                                                                                                                                                                                                                                                                        /label Sig_peptide
                                                                                                                                                                                                                                /label= Variable
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                                                                                                               CDR_H3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chain was obtained from HFETA-secreting hybridoma (FERW BP-5828)
CRNA by RT-PCR (see V70125-26). The invention provides humanised
HFETA antibodies (see W83031-37) produced by CDR grafting. These
antibodies are capable of inhibiting Fas-induced apoptosis in abnormal cells
cells. They are used to evaluate, in animal models, treatments of
diseases that involve Fas/Fas ligand interactions, and also to treat
such diseases, including autoimmune disease (e.g. systemic lupus
erythematosus, Hashimoto's disease, graft versus host disease,
Sologren syndrome, pernicious anaemia, Addison's disease,
scleroderma, Goodpasture syndrome, Crohn's disease, rheumatoid
arthritis, autoimmune haemolytic anaemia, sterility, myasthenia
gravis, multiple sclerosis, Basedow's disease, thrombopenia purpura
and insulin-dependent diabetes), allergies, atopy, artteriosclerosis,
myocarditis, cardiomyopathy, glomerular nephritis, hypoplastic
anaemia, hepatitis, AIDS and transplant rejection (all claimed).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New antibodies and proteins bind conserved epitope of Fas antigen used to evaluate drugs in animal models and to treat Fas-associated diseases e.g. autoimmune disease, allergy, atopy, arteriosclerosis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          monoclonal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Reference Example 4; Page 187-188; 292pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           myocarditis, hepatitis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-PSDB; V71029.
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                                                                                                                                                                                                                                                       GLYTMSSSYTVPSSTWPSQTVTCSVAHPASSTTVDKKLEPSGPISTINPCPPCKECHKCP
                                                                                                                                                                                                                                                                                                       SPKFKGKATLTVDKSSSTAYMELRSLTSEDSAVYYCARR---AGAYYFDYWGQGTTLTVS 117
 NMKTSKWEKTDSFSCNVRHEGLKNYYLKKTISRSPGK
                                   ipppkeqmakdkvsltcmitdffpeditvewqwngqpaenykntqpimntngsyfvyskl
                                                                    LPPPAEQLSRKDVSLTCLVVGFNPGDISVEWTSNGHTEENYKDTAPVLDSDGSYFIYSKL
                                                                                                     preeqfnstfrsvselpimhqnwlngkefkcrvnsaafpapiektisktkgrpkapqvyt
                                                                                                                                     THREDYNSTIRVVSTLPIQHQDWMSGKEFKCKVNNKDLPSPIERTISKIKGLVRAPQVYI 357
                                                                                                                                                                                      APNLEGGPSVFIFPPNIKDVLMISLTPKVTCVVVDVSEDDPDVQISWFVNNVEVHTAQTQ
                                                                                                                                                                                                                                       dlytlsssvtvpsstwpsqtvtcnvahpasstkvdkkivp----rdc-gckpc-ict
                                                                                                                                                                                                                                                                                                                                            SAKTTPPSVYPLAPGCGDTTGSSVTLGCLVKGYFPESVTVTWNSGSLSSSVHTFPALLQS
                                                                                                                                                                                                                                                                                                                                                                        ngkfkgkatltvdtssstaymqlssltsedsavyycarnrdysnnwyfdvwgtgttvtvs
                                                                                                                                                                                                                                                                                                                                                                                                                                         qvqlqqpgaelvkpgasvklsckasgytftsywmqwykqrpgqglewigeidpsdsytny 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EVQLQQSGPELVKPGASVMISCRTSAYTFTENTVHWVKQSHGESLEWIGGINPYYGGSIF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        is the amino acid of the heavy chain of murine anti-human Fas
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O, Nobufusa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          antibody HFE7A.
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                                                                                                                                                                                                                                                                                                                                                                                         64.5%;
                                                                                                                     Hiroko Y,
1 S, Shin Y
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AIDS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 1564.5;
Pred. No. 1.2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (complementarity determining regions) to antibody HFE7A. Via its interaction with Fas, the antibody of the invention acts as a modulator of apoptosis. The compositions of the invention may therefore be used in the treatment or prevention of conditions such as autoimmune diseases, allergy, atopy, arteriosclerosis, myocarditis, cardiomyopathy, glomerulonephritis, aplastic anaemia (panmyelophthisis), hepatitis, AIDS and organ graft rejection. The present sequence represents the heavy chain of the murine anti-human Fas monoclonal antibody HFE7A, which is produced by hybridoma HFE7A (FERM-BP-5828).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to compositions for the prevention or treatment or diseases caused by an abnormality in the Fas/Fas ligand system containing an anti-Fas antibody as the active component. The anti-Fas antibody is either the murine anti-human Fas monoclonal antibody HFE7A, or a humanised version of HFE7A containing identical CDRs
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Fas ligand; apoptosis modulator; programmed cell death;
autoimmune disease; allergy; atopy; arteriosclerosis; myocarditis;
cardiomyopathy; glomerulonephritis; aplastic anaemia; panmyelophthisis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Preventive or treating agent for the diseases caused by an abnormality in the Fas/Fas ligand system e.g. autoimmune diseases, contains
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B14747 standard;
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                                                                                                                                                                                                                                                                                  sakttppsvyplapgsaaqtnsmvtlgclvkgyfpepvtvtwnsgslssgvhtfpavlqs
                                   SAKTTPPSVYPLAPGCGDTTGSSVTLGCLVKGYPPESVTVTWNSGSLSSSVHTFPALLQS
                                                                                                                         nqkfkgkatltvdtssstaymqlssltsedsavyycarnrdysnnwyfdvwgtgttvtvs
                                                                                                                                                      SPKFKGKATLTVDKSSSTAYMELRSLTSEDSAVYYCARR---AGAYYFDYWGQGTTLTVS
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65.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Fas; antibody; murine; anti-inflammatory; anti-anemic; antidiabetic; anti-allergic; anti-arthritic; antiviral; immunomodulatory; cardiant; dermatological; immunosuppressive; thyromimetic; antirheumatic; anti-fas;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Murine anti-Fas antibody HFE7A heavy chain protein.
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                                                                              Example
                                                                                                        cells with abnormal Fas-Fas ligand systems
                                                                                                                   New humanized anti-Fas antibody, useful for treating inflammatory or autoimmune disease, induces apoptosis
                                                                                                                                                                                                     Serizawa N,
                                                                                                                                                                                                                                                          30-SEP-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                          cardiomyopathy;
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DB; A11546.
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98JP-0276882
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                                                                                                                                                                                                                                                                                                                                                                                                          glomerulonephritis;
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                                                                              4.
                                                                              Page 100-102; 263pp; English.
                                                                                                                                                                                                      Η,
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                                                                                                                                                                                                      Nakahara K,
                                                                                                                                                                                                                                                                                                                                                                                                          hepatitis; transplant
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                                                                                                            apoptosis
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This invention describes a novel humanized anti-Fas antibody-like molecule (I) that, induces apoptosis in cells with an abnormal Fas/Fas ligand system, by binding to Fas on the cell surface, and prevents apoptosis in cells with a normal system, by inhibiting binding between Fas and its ligand. The products of the invention have anti-inflammatory,

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Y50151
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Best Local S
Matches 298
                                        Antibody F19 chimeric mouse/human heavy chain variable region (chF19HC).
                                                                                           31-JAN-2000
                                                                                                                                                                                                 Y50151 standard; Protein; 453
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                                                                                                                                                                                                                                                                                                                               428
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EVQLQQSGPELVKPGASVMISCRTSAYTFTENTVHWVKQSHGESLEWIGGINPYYGGSIF 60
                                                                                                                                                                                                                                                                                                                            nvqksnweagntftcsvlheglhnhhtekslshspgk 464
                                                                                                                                                                                                                                                                                                                                                                               NMKTSKWEKTDSFSCNVRHEGLKNYYLKKTISRSPGK 454
                                                                                                                                                                                                                                                                                                                                                                                                                                                             LPPPAEQLSRKDVSLTCLVVGFNPGDISVEWTSNGHTEENYKDTAPVLDSDGSYFIYSKL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   preeqfnstfrsvselpimhqnwlngkefkcrvnsaafpapiektisktkgrpkapqvyt 367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             THREDYNSTIRVVSTLPIQHQDWMSGKEFKCKVNNKDLPSPIERTISKIKGLVRAPQVYI 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APNLEGGPSVFIFPPNIKDVLMISLTPKVTCVVVDVSEDDPDVQISWFVNNVEVHTAQTQ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sakttppsvyplapgsaagtnsmvtlgclvkgyfpepvtvtwnsgslssgvhtfpavlqs
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SPKFKGKATLTVDKSSSTAYMELRSLTSEDSAVYYCARR---AGAYYFDYWGQGTTLTVS 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qvqlqqpgaelvkpgasvklsckasgytftsywmqwvkqrpgqglewigeidpsdsytny 79
                                                                                                                                                                                                                                                                                                                                                                                                                             ipppkeq \texttt{makdkvsltcmitdffpeditvewqwngqpaenykntqpimntngsyfvyskl}
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65.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 1564.5; DB 21; Length 464; Pred. No. 1.2e-93;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
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Best Local
                                                                                                                                                                                                                                                                                                                               chimeric antibody was humanised by joining entire murine variable regions to human constant regions. However, humanised antibodies produced by this method can still elicit an anti-mouse response in humans, whereas antibodies humanised via CDR (complementarity determining region) graftling are less immunogenic in humans. Humanised F19 antibodies are useful for treating cancers e.g., colorectal cancers, non-small cell lung cancers, breast cancers, head and neck cancers, ovarian cancers, lung cancers, breast cancers, pancreatic cancers and metastatic cancers. They are also useful for the detection of activated stromal fibroblasts in a healing wound, inflamed skin or a tumour in a human patient.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Accession number HB 8269) is a murine monoclonal antibody against fibroblast activation protein alpha (FAP). FAP is a cell surface molecule of reactive stromal fibroblasts, and its induction is a highly consistent molecular trait of the reactive stroma of many types of epithelial cancer. Although F19 may be useful in vitro, e.g., for diagnosis, its applications for in vivo use in humans are problematic as it elicits a human anti-mouse response which reduces the efficacy of the antibody in patients and impairs continued administration. This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         humanisation; complementarity determining region; CDR; CDR grafting; reactive stroma; fibroblast; epithelial cancer; diagnosis; immune response; framework sequence; constant region; variable region; producibility; treatment; cancer; colorectal; lung; breast; head; neck; ovarian; lung; bladder; pancreatic; metastasis;
                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This sequence represents the heavy chain variable region chimeric mouse/human F19 antibody (chF19HC). F19 (ATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New antibody protein, presence of activated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1999-621833/54.
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Chimeric - Homo
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rettig
116 VSSAKTTPPSVYPLAPGCGDTTGSSVTLGCLVKGYFPESVTVTWNSGSLSSSVHTFPALL 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BOEH ) BOEHRINGER INGELHEIM INT GMBH.
                                                                                                                                                                                                                 Local Similarity
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                                      qkfkgratltvgkssstaymelrsltsedsavyfcarrriaygydeghamdywgqgtsvt 120
                                                                                                                 vqlqqsgpelvkpgasvkmscktsrytfteytihwvrqshgkslewigginpnngipnyn 60
                                                                                                                                      VQLQQSGPELVKPGASVMISCRTSAYTFTENTVHWVKQSHGESLEWIGGINPYYGGSIFS 61
                                                                             PKFKGKATLTVDKSSSTAYMELRSLTSEDSAVYYCARRAGAYYF-----DYWGQGTTLT 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ΨJ;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       heavy chain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fig 18; 143pp; English.
                                                                                                                                                                                                                                                                                                453 AA;
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                                                                                                                                                                                                               64.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          useful for treating cancer and stromal fibroblasts in healing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bamberger U,
                                                                                                                                                                                               61;
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                                                                                                                                                                                               Score 1559; DB 20
Pred. No. 2.7e-93;
51; Mismatches 88
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                                                                                                                                                                                                                                     20;
                                                                                                                                                                                                                                   Length 453;
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121 vssastkgpsvfplapsskstsggtaalgclvkdyfpepvtvswnsgaltsgvhtfpavl

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RESULT 12
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 Park JE,
                                             30-APR-1998;
                                                                    30-APR-1998;
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                                                                                                                                                                                                                                                                                                                                                                                              chimeric;
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                                                                                                                                                                                                                                                                                                                                                                                                                                 variable
                                                                                                                                                                                                                                                                                                                                                                                                                                         humanisation; complementarity determining region; CDR; CDR reactive stroma; fibroblast; epithelial cancer; diagnosis; immune response; framework sequence; constant region;
                      (BOEH ) BOEHRINGER INGELHEIM INT GMBH
                                                                                                                                                                                                                                                      Region
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VYILPPPAEQLSRKDVSLTCLVVGFNPGDISVEWTSNGHTEENYKDTAPVLDSDGSYFIY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        standard;
                                                                                                                                                                                                                                                                                                                                                                                                      e region; producibility; treatment; cancer; colorectal; lung; head; neck; ovarian; lung; bladder; pancreatic; metastasis; on; wound healing; skin inflammmation; tumour; immunogenicit
 Garin-Chesa
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                                                                    98EP-0107925
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143..1
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69..85
                                                                                                                                                                                                                                                      /note=
50..54
                                                                                                                                                                                                                                                                            /note= "Mature chimeric mouse/human F19 heavy chain" 20..143
                                                                                                                                                                                                                                                                                                   /note= "Leader peptide"
20..472
                                                                                                                                                                                                                                                                                                                                                            sapiens
                                                                                                                                                  144..472
                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                        /note=
                                                                                                                                                                                                         118..132
                                                                                                                                       /note=
                                                                                                                                                                                                                      /note-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Protein; 472
                                                                                                                                                                                    . 144
P,
                                                                                                                                                           "mRNA splicing causes an between these residues"
                                                                                                                                                                                              "CDR 3"
                                                                                                                                                                                                                     "CDR 2"
                                                                                                                                                                                                                                          "Complementarity determining region (CDR) 1"
                                                                                                                                      "Human gamma-1 heavy chain
                                                                                                                                                                                                                                                                  "Mature mouse
Bamberger U,
                                                                                                                                                                                                                                                                  F19
Leger 0,
                                                                                                                                                                                                                                                                 heavy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                453
                                                                                                                                                                                                                                                                 chain variable region"
                                                                                                                                                                                                                                                                                                                                                                                                       tumour; immunogenicity;
                                                                                                                                                                       Ala
 Saldanha
                                                                                                                                      constant region'
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          is a highly consistent molecular trait of the reactive stroma of many types of epithelial cancer. Although F19 may be useful in vitro, e.g., for diagnosis, its applications for in vivo use in humans are problematic as it elicits a human anti-mouse response which reduces the efficacy of the antibody in patients and impairs continued administration. This chimeric antibody was humanised by joining entire murine variable regions to human constant regions. However, humanised antibodies produced by this method can still elicit an anti-mouse response in humans, whereas antibodies humanised via CDR (complementarity determining region) grafting are less immunogenic in humans. Humanised T19 antibodies are profit for treating are less immunogenic in humans.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  useful for treating cancers e.g., colorectal cancers, non-small cell lung cancers, breast cancers, head and neck cancers, ovarian cancers, lung cancers, bladder cancers, pancreatic cancers and metastatic cancer They are also useful for the detection of activated stromal fibroblasts in a healing wound, inflamed skin or a tumour in a human patient.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                antibody against fibroblast activation protein alpha (FAP). FAP is surface molecule of reactive stromal fibroblasts, and its induction
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This sequence represents the heavy chain of a chimeric mouse/human Fantibody. F19 (ATCC Accession number HB 8269) is a murine monoclonal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New antibody protein, presence of activated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 1; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1999-621833/54.
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 432
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 EVQLQQSGPELVKPGASYMISCRTSAYTFTENTVHWVKQSHGESLEWIGGINPYYGGSIF 60
                   YSKLNMKTSKWEKTDSFSCNVRHEGLKNYYLKKTISRSPGK
                                                                    --cpapellggpsvflfppkpkdtlmisrtpevtcvvvdvshedpevkfnwyvdgvevhn
                                                                                                                                                                                                                                                         HKCPAPNLEGGPSVFIFPPNIKDVLMISLTPKVTCVVVDVSEDDPDVQISWFVNNVEVHT 293
                                                                                                                                                                                                                                                                                                              LQ-SGLYIMSSSYTVPSSTWPSQTVTCSVAHPASSTTVDKKLEPSGPISTINPCPPCKEC
                                                                                                                                                                                                                                                                                                                                                                                                      TVSSAKTTPPSVYPLAPGCGDTTGSSVTLGCLVKGYFPESVTVTWNSGSLSSSVHTFPAL 174
                                                                                                                                                                                                                                                                                                                                                                                                                                        ngkfkgratltvgkssstaymelrsltsedsavyfcarrriaygydeghamdywgggtsv 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                             evqlqqsgpelvkpgasvkmscktsrytfteytihwvrqshgkslewigginpnngipny 79
yskltvdksrwqqgnvfscsvmhealhnhytqkslslspgk
                                                                                                                                            aktkpreegynstyrvvsvltvlhqdwlngkeykckvsnkalpapiektiskakgqprep
                                                                                                                                                                                                                                                                                                                                                                 tvsss-tkgpsvfplapsskstsggtaalgclvkdyfpepvtvswnsgaltsgvhtfpav
                                                                                                                                                                                AQTQTHREDYNSTIRVVSTLPIQHQDWMSGKEFKCKVNNKDLPSPIERTISKIKGLVRAP
                                                                                                                                                                                                                                                                                             lqssglyslssvvtvpssslgtqtyicnvnhkpsntkvdkkvepkscdkt-htcpp----
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27; 143pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           63.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 useful for treating stromal fibroblasts
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            62;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 1550.5; Di
Pred. No. 1e-92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cancer and for imaging in healing wound or in:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 20;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            87; Indels
                                      454
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R66758 standard; Protein; 465

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Best Local S
Matches 295
                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                              monoclonal antibody. The cDNAs were incorporated into plasmid vector, which was incorporated into A. tumefac
                                                                                                                                                                                                                                                                                                                    Q79929 and Q79930 encode R66757 and R66758, the light and heavy chains of an animal derived anti-tobacco mosaic virus (TMV)
                                                                                                                                                                                                                                                                                                                                                                               Transformed plant producing animal-derived anti-virus antibody esp. tobacco plants producing anti-tobacco mosaic virus monoclonal antibody
                                                                                                                                                                                                                                                        plasmid vector, which was incorporated into A. tumefaciens. The resultant plant expression vector was used to transform tobacco plants, making them TMV resistant, the plants could also be biofarmed for the prodn. of anti-virus antibodies.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-MAY-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           07-MAY-1993;
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                                                                                                                                                                                                                                                                                                                                                       Example 2; Pages 14-15; 26pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Anti-tobacco mosaic virus monoclonal Ab heavy chain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-SEP-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22-NOV-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Tobacco mosaic virus; TMV; monoclonal antibody; heavy chain; virus-resistant plants; biofarming
177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                (NISB ) JAPAN TOBACCO INC. (KURS ) KURARAY CO LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Peptide
                            80
                                                                                                    61
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                                                                                                                                                                           Local Similarity 64.4 Local Similarity
                                                                                                                                                 1 EVQLQQSGPELVKPGASVMISCRTSAYTFTENTVHWVKQSHGESLEWIGGINPYYGGSIF 60
      SGLYTMSSSYTVPSSTWPSQTVTCSVAHPASSTTVDKKLEPSGPISTINPCPPCKECHKC
                                          SSAKTTPPSVYPLAPGCGDTTGSSVTLGCLVKGYFPESVTVTWNSGSLSSSVHTFPALLQ 176
                                                                        SPKFKGKATLTVDKSSSTAYMELRSLTSEDSAVYYCARRAG----AYYFDYWGQGTTLTV 116
                                                                                                                        1995-040220/06
DB; Q79930.
                                                                                                                                                                                                                                     465 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     93JP-0131208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           93JP-0131208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /label- leader
20..465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              142..465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "variable heavy domain"
129..141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /label= mat_peptide
20..128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note= "J héavy 4 domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                          63.9%; Score 1550; DB 16; 64.4%; Pred. No. 1.1e-92; tive 58; Mismatches 89;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "constant heavy domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    biofarming
                                                                                                                                                                                                Length 465;
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RESULT 14
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                                                                                                                                         Best Local Similarity Matches 294; Conserv
                                                                                                                                                       Query Match
Best Local
                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                antibody H52H4-160.
                                                                                                                                                                                                                                            The sequence is that of the heavy chain of murine anti-CD18
                                                                                                                                                                                                                                                                     Disclosure; Fig 6A; 126pp;
                                                                                                                                                                                                                                                                                             Humanisation of antibodies - by molecular modelling of the variable domains and alteration by gene conversion mutagenesis
                                                                                                                                                                                                                                                                                                                                     WPI; 1993-018139/02.
                                                                                                                                                                                                                                                                                                                                                            Carter PJ,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R30774;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R30774 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                             14-JUN-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                      15-JUN-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               23-DEC-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Humanisation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 H52H4-160 murine anti-CD18 antibody heavy chain.
                                                                                                                                                                                                                                                                                                                                                                                    (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12-MAY-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        115 TVSSAKTTPPSVYPLAPGCGDTTGSSVTLGCLVKGYFPESVTVTWNSGSLSSSVHTFPAL 174
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                                    ngrfmdkatlavdkststaymelrsltsedsgiyycarwrglnygfdvryfdvwgagttv 120
                                                  qvqlqqsgpelvkpgasvkiscktsgytfteytmhwmkqshgkslewiggfnpknggssh 60
                                                                                                     EVQLQQSGPELVKPGASVMISCRTSAYTFTENTVHWVKQSHGESLEWIGGINPYYGGSIF 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ILPPPAEQLSRKDVSLTCLVVGFNPGDISVEWTSNGHTEENYKDTAPVLDSDGSYFIYSK 416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LNMKTSKWEKTDSFSCNVRHEGLKNYYLKKTISRSPGK 454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PAPNLEGGPSVFIFPPNIKDVLMISLTPKVTCVVVDVSEDDPDVQISWFVNNVEVHTAQT 296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qpreeqfnstfrsvselpimhqdwlngkefkcrvnsaafpapiektisktkgrpkapqvy
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454 AA;
                                                                                                                                            Conservative
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                                                                                                                                                                                                                                                                                                                                                            <u>ب</u>
                                                                                                                                                     63.8%;
63.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         monoclonal antibody
 454 AA
                                                                                                                                                                                                                                                                    English.
                                                                                                                                            59;
                                                                                                                                         Score 1548; DB 14;
Pred. No. 1.4e-92;
9; Mismatches 94;
                                                                                                                                         94;
                                                                                                                                                                   Length 454;
                                                                                                                                            Indels
                                                                                                                                            14;
                                                                                                                                          Gaps
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RESULT
B08026
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Genetically engineering immunoglobulin (Ig) G/IgG dimers for the treatment of cancers, allergic disorders and autoimmune condition
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A dimeric anti-CD20 heavy chain polypeptide.
                                                                                                                         Braslawsky GR,
                                                                                                                                                                                                                                                   28-JAN-2000; 2000WO-US01893
                                                                                                                                                                                                                                                                                              03-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                       Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chimeric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      B-cell lymphoma; rheumatoid arthritis; ulcerative colitis; psoriasis; pigeon breeder's disease; hepatitis; leprosy; Lyme disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Anti-CD20 antibody; dimeric immunoglobulin; immunoglobulin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14-NOV-2000
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                                                                                                                                                                     (IDEC-) IDEC PHARM CORP
                                                                                                                                                                                                                                                                                                                                      WO200044788-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          414 yskltvdksrwqqgnvfscsvmhealhnhytqkslslspgk 454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 414 YSKLNMKTSKWEKTDSFSCNVRHEGLKNYYLKKTISRSPGK 454
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note= "signal peptide"
20..140
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                                                                                                                           Hariharan
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cc engineering a monocional antibody to introduce a cysteine molecule cowhich inhibits formation of intramolecular disulphide bridges between cc sister heavy chains on the same antibody molecule. The dimer is a cc homodimer or heterodimer that is capable of activating components of the cc complement system, and has the ability to activate and kill cells via the cc complement cascade. The dimer is also capable of binding to Fogamma cc receptors on cytotoxic effector cells and on host immune cells, and is cc capable of initiating programmed cell death. The IgG/IgG dimers may be cl used to treat allergic disorders, cancers and autoimmune diseases such cas allergic asthma, allergic bronchopulmonary aspergillosis, allergic crinitis, atopic dermatitis, Crohn's disease, Graves's disease, food allergies, allergic contact dermatitis, CLL cancers and/or B-cell cl ymphomas. They may also be used to treat a range of other diseases and cc gigeon breeder's disease, hepatitis, leprosy, Lyme disease, diabetes mellitus, candidasis and aplastic anamaia. They are also useful for inducing home-crirosections of membrane astices.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                inducing hyper-cross-linking of membrane antigens and
preferential killing of selected cell populations.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  polypeptide. The dimeric immunoglobulin is used in the method of invention. The specification describes a method for producing an immunoglobulin (Ig) G/IgG dimer. The method comprises genetically
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 1; Fig 2A-C;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          present sequence represents a dimeric anti-CD20 light ypeptide. The dimeric immunoglobulin is used in the met
                                                                                                                                                                                QTHREDYNSTIRVYSTLPIQHQDWMSGKEFKCKVNNKDLPSPIERTISKIKGLVRAPQVY
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                                                                                tlppsrdeltknqvsltclvkgfypsdiavewesngqpennykttppvldsdgsfflysk
                                                                                                   ILPPPAEQLSRKDVSLTCLVVGFNPGDISVEWTSNGHTEENYKDTAPVLDSDGSYFIYSK
                                                                                                                                                             kpreegynstyrvvsvltvlhqdwlngkeykckvsnkalpapiektiskakgqprepqvy
                                                                                                                                                                                                                                              papellggpsvflfppkpkdtlmisrtpevtcvvvdvshedpevkfnwyvdgvevhnakt
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1493.5; DB
Pred. No. 4.8e-89;
2; Mismatches 101
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